No. of the second secon			
THE NOTATIONS			
5 and in NID File	Checked by Chief	- mark district	
- 3- S.R. Shogt	Copy NID to Field Office .	mande dansiti	
Lo 10 14 ip Pinned	Approval Letter .		
C + rad	Disapproval Letter .	***************************************	
1 W P & State or Fee Land			
○ MZLETION DATA:			
Date Well Completed 3-14-56	Location inspected		
OW TA	Bond released		
GWOSPAX	State of Fee Land		
LOGS F	ILED		
Driller's Log 4-18-36			
Electric Logs (No.)			
E	GR Mic	rot	2)
Lat Mi-L Sonic	Others Wulling R	ate, Selfaling	Syllia
\bigcirc			
	v v	• *	
Scout Report sent out			
Noted in the NID File	П		
Location map pinned			
Approval or Disapproval Letter			
Date Completed, P. & A. or	_		
Pin changed on location map			
Affidavit and Record of A & P		1 2 1	
Water Shut-Off Test		A STATE OF THE STA	
Gas-Oil Ratio Test		*	
Well Log Filed			

(SUBMIT IN TRIPLICATE)

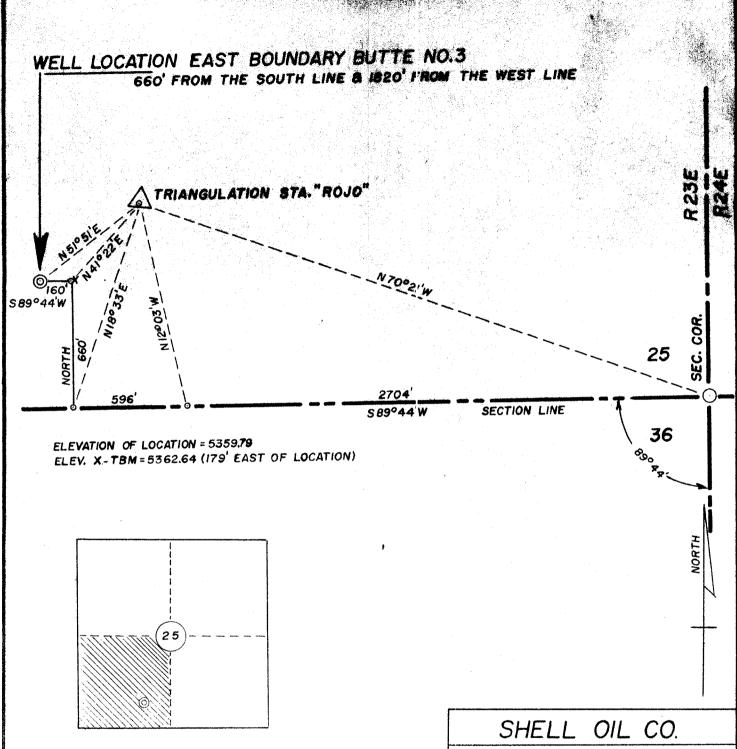
UNITED STATES DEPARTMENT OF THE INTERIOR GEOLOGICAL SURVEY

Indian Agency

Allottee Tribal Lacids
Lease No. 14-20-603-215

	de contractor de la con	i 🐠 d			1
OTICE OF INT	TENTION TO DRILL	į Jį		OF WATER SHUT-OFF	1 1
NOTICE OF INT	TENTION TO CHANGE PLANS	1 1		OF SHOOTING OR ACIDIZIN	
NOTICE OF INT	TENTION TO TEST WATER SHU	1. 1		of altering casing	1 1
NOTICE OF INT	TENTION TO REDRILL OR REP.	AIR WELL S	UBSEQUENT REPORT	of redrilling or repair	₹
NOTICE OF INT	TENTION TO SHOOT OR ACIDIZ	ZE S	UBSE QUENT REPORT	OF ABANDONMENT	
NOTICE OF IN	TENTION TO PULL OR ALTER	CASINGS	UPPLEMENTARY WELL	. HISTORY	
NOTICE OF IN	TENTION TO ABANDON WELL				
	(INDICATE ABOV	/E BY CHECK MARK NATURE	OF REPORT, NOTICE	OR OTHER DATA)	
,				March 13,	1956
ell No.	is located	660 ft. from S	line and	Ift. from W line	of sec.
\$4/4 (1/ 500	and Sec. No.)	(Twp.) (Rang	a)	(Meridian)	
11deat		(Iwp.) (Rang	~ ,	(Werkin)	
	(Field)	(County or Subd	ivisio i)	(State or Terri	tory)
tate names of	and expected depths to object	DETAILS C			udding jobs, cement
ate names of Drill	and expected depths to object in 12-1/4" hele to ad coment 9-5/8"	DETAILS Of tive sands; show sizes, weign points, and all other im	or WORK	roposed casings; indicate mork)	Lan coment.
. Drill . Rum a . Drill	and expected depths to object in the last of the last	DETAILS C	or work. This, and lengths of piport and proposed wo	roposed casings; indicate mork) Recks comments The Objective	cant
Drill Drill Drill	and expected depths to object in 12-1/4" hele to ad coment 9-5/8"	DETAILS C	or work. This, and lengths of piport and proposed wo	roposed casings; indicate more) Construction Construction Construction Construction Construction Construction Construction	Dander / CAA
tate names of Prill Drill If to	and expected depths to object in 12-1/1" hole to ad cament 9-5/8" to a total depth were is a product to a filed, others.	DETAILS Of tive sands; show sizes, weigng points, and all other im	or work. This, and lengths of piport and proposed wo	roposed casings; indicate more) Construction Construction Construction Construction Construction Construction Construction	Dander / CAA
Drill Drill Drill Drill Orill Surfa	and expected depths to object in the control of the	DETAILS C	of WORK. This, and lengths of proposed wo	roposed casings; indicate mores cle objective continue the	Dandon / CAA
Late names of Drill Run Drill If the standard of the stand	and expected depths to object in the second 9-5/8* to the second	DETAILS Of tive sands; show sizes, weigng points, and all other im	of WORK. This, and lengths of proposed wo	roposed casings; indicate mores cle objective continue the	Dandon / CAA
Drill Drill Drill Tree Surfa	and expected depths to object in the second 9-5/8* to the second	DETAILS Of tive sands; show sizes, weigng points, and all other im	of WORK. This, and lengths of proposed wo	roposed casings; indicate mores cle objective continue the	Dandon f Cart
tate names of Drill Drill I understand Company	and expected depths to object in the state of the state o	DETAILS Of tive sands; show sizes, weiging points, and all other im	The state of paper and proposed we will be state of paper and proposed we will be state of the state of paper and proposed we will be state of the s	roposed casings; indicate mores cle objective continue the	Daudon CAA

U. S. GOVERNMENT PRINTING OFFICE 16-8437b-6



THIS IS TO CERTIFY THAT THE ABOVE PLAT WAS PREPARED FROM FIELD NOTES OF ACTUAL SURVEYS MADE BY ME OR UNDER MY SUPERVISION AND THAT THE SAME ARE TRUE AND CORRECT TO THE OF MY KNOWLEDG AND BELIEF.

AMEG DIFFEE

REGISTERED LAND SURVEYOR

MEG. NO. 1473

WELL LOCATION SE 1/4 SW1/4
SECTION 25 T43S R23E SLM
SAN JUAN COUNTY UTAH

MARCH 9 1956 SCALE 1" = 500"

DRAWN BY W.C.

SAN JUAN ENGINEERING CO. FARMINGTON NEW MEXICO

Shell Oil Company 33 Richards Street Salt Lake City, Utah

ATTENTION: B. W. Shepard, Exploitation Engineer

Gentlemen:

This is to acknowledge receipt of your notice of intention to drill Well No. East Boundary Butte -3, which is to be located 660 feet from the south line and 1820 feet from the west line of Section 25, Taxable 43 South, Range 23 East, SIM, San Juan County.

Please be advised that immofar as this office is concerned, approval to drill said well is hereby granted.

Very truly yours,

HERBERT F. SMART COMMISSIONER

CBF tro

cc: Phil MeGrath, District Engineer USGS Farmington, New Mexico

(SUBMIT IN TRIPLICATE)

UNITED STATES DEPARTMENT OF THE INTERIOR GEOLOGICAL SURVEY

			1		
Allottee	Tri)	w1	Land		٠.
Lease No	11.	-20-	60)-	21	5

TICE OF	INTENTION TO DRILL		SUBSEQUI	ENT REPORT	OF WATER SHUT-OFF	
	INTENTION TO CHANGE PLA					
	INTENTION TO TEST WATER		1 11		OF ALTERING CASING	
	INTENTION TO REDRILL OF		SUBSEQU	ENT REPORT	OF REDRILLING OR REPAIR.	
	INTENTION TO SHOOT OR		SUBSEQU	ENT REPORT	OF ABANDONMENT	
	INTENTION TO PULL OR AL		SUPPLEM	ENTARY WELL	. HISTORY	
OTICE OF	INTENTION TO ABANDON W	VELL				
	(INDICATE	ABOVE BY CHECK MAR	K NATURE OF RE	PORT, NOTICE	OR OTHER DATA)	
				*	April b,	, 19 56
Eost :	Boundary Butto	ated 60 ft. f	$\operatorname{rom}\left\{ \begin{array}{c} \mathbf{S} \\ \mathbf{S} \end{array} \right\}$ line	and 1820	ft. from W line	of sec. 25
W 2	Sec. and Sec. No.)	(Twp.)	(Range)		(Meridian)	
(% t Mideni	1	San Jan			iltah	
ate names	s of and expected depths to		AILS OF W sizes, weights, and	ORK	roposed casings; indicate mu ork)	dding jobs, cemei
ate names	Ran and cament 275 sacks con- chlorids. God Tlanged UP and	objective sands; show ing points, and al	AILS OF Western with the second of the secon	ORK. d lengths of p t proposed w L.1.40. 100 sec	, National casis ke treated with Finished 2:30 ; Tested blowed	u at 322' calcium .a. 3-26-
26-56	Ran and cement 275 macks con- chloride. Con- Flanged up and and caming wi	objective sands; show ing points, and al	AILS OF Western with the second of the secon	ORK. d lengths of p t proposed w L.1.40. 100 sec	, National casis ke treated with Finished 2:30 ; Tested blowed	u at 322' calcium .a. 3-26-
26-56	Ran and cement 275 macks con- chloride. Con- Flanged up and and caming wi	objective sands; show ing points, and al	AILS OF Western with the second of the secon	ORK. d lengths of p t proposed w L.1.40. 100 sec	, National casis ke treated with Finished 2:30 ; Tested blowed	u at 322' calcium .m. 3-26-5
26-56	Ran and cement 275 macks con- chloride. Con- Flanged up and and caming wi	objective sands; show ing points, and al	AILS OF Western with the second of the secon	ORK. d lengths of p t proposed w L.1.40. 100 sec	, National casis ke treated with Finished 2:30 ; Tested blowed	u at 322' calcium .m. 3-26-5
26-56	Ran and cement 275 macks con- chloride. Con- Flanged up and and caming wi	objective sands; show ing points, and al	AILS OF Western with the second of the secon	ORK. d lengths of p t proposed w L.1.40. 100 sec	, National casis ke treated with Finished 2:30 ; Tested blowed	u at 322' calcium .m. 3-26-5
26-56	Ran and cement 275 macks con- chloride. Con- Flanged up and and caming wi	objective sands; show ing points, and al	AILS OF Western with the second of the secon	ORK. d lengths of p t proposed w L.1.40. 100 sec	, National casis ke treated with Finished 2:30 ; Tested blowed	u at 322' calcium .m. 3-26-5
26-56	Ran and cement 275 macks con- chloride. Con- Flanged up and and caming wi	objective sands; show ing points, and al	AILS OF Western with the second of the secon	ORK. d lengths of p t proposed w L.1.40. 100 sec	, National casis ke treated with Finished 2:30 ; Tested blowed	u at 322' calcium .m. 3-26-5
26-56	Ran and commit 275 sacks consobleride. God Planged up and and caming will 3-24-56	objective sands; show ing points, and al	AILS OF Westzes, weights, and other important	ORK d lengths of p t proposed w	, Mational casis he treated with Finished 2:30; Tested blowers	et 322' calcium).m. 3-26-5 t equipment
26-56	Ran and commit 275 sacks consobleride. God Planged up and and caming will 3-24-56	objective sands; show ing points, and al	AILS OF Westzes, weights, and other important	ORK d lengths of p t proposed w	, National casis ke treated with Finished 2:30 ; Tested blowed	et 322' calcium).m. 3-26-5 t equipment
I underst	Ron and commit 275 sacks consection for the consection of the cons	objective sands; show ing points, and al	AILS OF Westzes, weights, and other important to the impo	ORK d lengths of p t proposed w	, Mational casis he treated with Finished 2:30; Tested blowers	et 322' calcium).u. 3-26- L equipment
I underst	Ran and commit 275 sacks consistence. God Planged up and and casting will 3-24-56 tand that this plan of work 3.3 Richards	objective sands; show ing points, and all the same ingression of the	AILS OF Westzes, weights, and other important to the impo	ORK d lengths of p t proposed w	Survey before operations ma	et 322' calcium).m. 3-26-5 t equipment
26-56	Ran and commit 275 sacks consistence. God Planged up and and casting will 3-24-56 tand that this plan of work 3.3 Richards	objective sands; show ing points, and al	AILS OF Westzes, weights, and other important to the impo	ORK d lengths of p t proposed w	, Mational casis he treated with Finished 2:30; Tested blowers	et 322' calcium A.a. 3-26-4 L'equipment

WELL NO. ___3

East Boundary Butte
(FIELD)
San Juan County, Utah

DRILLING REPORT FOR PERIOD ENDING

May 9, 1956

Section 25
(SECTION OR LEASE)

T. 13 S., R. 23 E., S. L. M.
(TOWNSHIP OR RANGHO)

DAY	DE	PTHS		
1956	FROM	то	REMARKS	
5-5 to 5-8	6020	T. D.	Released Baroid logging unit at 9:00 AM. (May 5, 1956) Ran in with open end drill pipe, circulated.	5)
5 - 9			Halliburton cemented plugs at:	
) - 9			a. 5900', with 30 sacks Ideal Portlant cement. b. 5700, with 30 % % % % c. 5200, with 60 % % % % % d. 4950, with 70 % % % % e. 4000, with 30 % % % % f. 3150, with 30 % % % % g. 2400, with 30 % % % % h. 2150, with 60 % % % % i. 1700, with 30 % % % % j. 1350, with 30 % % % % % Found firm cement plug at 675'. Released rig at 8:00 AM. (May 9, 1956)	(bulk) n n n n n n n n n n
5-14	6020	T. D.	Capped with a 10 sack cement plug, installed marker a abandoned 5-14-56.	nd officially

CONDITION AT BEGINNING OF PERIOD						
HOLE			CASIN	G SIZE	DEPTH SET	
	ZE	FROM	то			
12	1/4"	0	8401	9	5/8*	8231
7	7/8*	8401	60201		~	•
	İ	~				
			<u> </u>		Ì	
D	RILL P	IPE I.	7 / 97		ŀ	

Contractor: George Noland Drilling Company

Drillers: Foster

Perryman Swisher East Boundary Butte
(FIELD)
San Juan County, Utah
(COUNTY)

DRILLING REPORT

5-4-56

T. 43 S., R. 23 E., S.L.M.
(SECTION OR LEASE)

(TOWNSHIP OR RANCHO)

DAY	DEPTHS		
1956	FROM	то	REMARKS
4-28 to 5-1	54981	5820 1	Drilled 322', treated mud with water, aquagel, impermex, preservative, and gypsum.
5-2			DST 6: 5698-5820, Bobtail packers @ 5692, 5698; tailpiece 122' to 5820', perforated 5699-5710 and 5796-5804, 58' (0.28 BBL.) air cushion, hole below packers 4.18 Bbls, 4 outside pressure recorders, 1-3/4" subsurface bean, 1-1" surface bean, drill collars and tools 217.15'. Immediate strong steady air blow 1 hour 30 minutes, slowly decreasing to strong steady blow of air and trace gas (2MSA Units) for 25 minutes, decreased to steady weak blow for 35 minutes. Initial shut in 20 minutes, open 2 hours 30 minutes, shut in 1 hour 15 minutes, fluid loss in annulus 3' (0.1 BBL.) Recovered 60' (0.29BBL) very slightly water cut mud (wt. 9.3 to 10.1, salinity 1155 ppm., gas 7/3), IHP 3260, FHP 3150, ISIP 202.5, IFP 115, FFP 129, SIP 129 (rising). Mud in pits 1050 ppm., 10.3 #/gal.
5-3	58 2 0 •	58751	Drilled 55'. DST 7: 5820-5875, Bobtail packers @ 5814, 5820, tailpiece 55' to 5875, perforated 5824-27, 5858-59, 5864-67, 29' (0.14) air cushion, hole below packers 1.97 Bols, 4 outside recorders, 1-3/4" subsurface bean, 1-1" surface bean, drill collars and tools 124.14'. Immediate very strong air blow for 10 minutes, decreasing strong steady gas blow for 40 minutes, decreasing slowly to good steady gas blow for 100 minutes. Initial shut in 20 minutes, open 2 hours 30 minutes, shut in 1 hour 15 minutes, fluid loss in annulus 3' (0.1 BBL.) recovered 33' (0.47 BBLS.) Mud slightly water cut (salinity 3465, wt. 9.8); 357' (2.04 BBLS.) WCM (salinity 12,705 to 48750, wt. 9.1), IHP 3215, FHP 3170, ISIP 1835, IFP 120, FFP 180, SIP 815, (stab. 50 minutes). Mud in pits 1050 ppm., 10.3 #/gal.
5-4	5875'	60201	Drilled 145', treated mud with water, aquagel, impermex, preservative, gypsum. Ran Schlumberger Electrical Survey, Gamma-ray-neutron, Microlog, Laterolog. Mud Summary 4-28-56 - 5-4-56 wt. 10.3 #/gal. visc.853 sec. W.L. 856 Cake 2/32" Salinity 1050-1980 ppm. NaCl (t) pH 7.5
	CON	DITION AT	BEGINNING OF PERIOD Tested B.O.P. daily

CONDITION AT BEGINNING OF PERIOD							
HOLE			CASING SIZE	DEPTH S	ET		
SIZE	FROM	то					
12 1/4	0	840	9 5/8**	823			
7 7/8	840	5498					
		,	ļ. !				
	1		·				
DRILL		և 1/21					

Tested B.O.P. daily

Contractor: George Noland

Drillers: Foster

Perryman Swisher

East Boundary Butte

DRILLING REPORT

4-27-56

T. 43 S., R. 23 E., S.L.M.

(TOWNSHIP OR RANCHO)

Day	DOGI	(FIELD)	Davec	<u></u>
San	Juan	Co.,	Utah	,
		(COUNTY	0	

DAY	DEP	тнѕ	REMARKS
	FROM	то	stamps 1700
4-24 27	5243	5498	Drilled 255. Treated mud with water, aquagel, impermex, preservative, gypsum. D.S.T. #5, 5380-5498, Johnston testers. Ran tester with two bobtail packers at 5374 and 5380, 4 outside recorders, 1-3/4 subsurface beam, 1-1 surface beam, perforations 5380 - 5394 and 5480 - 5494, 30 air cushion. Tool open 1 hour 30 minutes after 20 minute initial shut-in, 1 hour final shut-in. Immediate moderate blow, constant throughout test, no inflamable gas to surface. No fluid loss in annulus. Recovered 1410 (17.5 bbl.) Fluid including 60 (.85 bbls, water cut mud, 510 (empty-well headed) appeared to be slightly muddy water, 300 (4.26 bbls.) Slightly oil-cut muddy Sulphurous water, and 540 (5.6 bbls.) Slightly muddy black Sulphurous water.
			Feet Above Salinity (t) Wt. lbs/
			Tester Description pom. NaCl gal. Fluo.
	-		1350' W.C.M. 6,280 9.2 Brown Yellow 810' sl.O.C. M. Sul.W. 9,400 7.8 Brown Green Yellow
•		And the second section of the s	720' sl. C.C. M. Sul W. 28,000 7.8 Brown Green Yellow
			340' sl. M. BK Sul.W. 115,000 8.9 Brown Yellow
		and the second s	90' sl. M. BK. Sul.W. 105,000 9.0 Brown Yellow o' sl. M. BK. Sul.W. 102,000 9.0 Bright Yellow
		PRINCEPACIÓN COMPANION COM	ISIP 1825, H.P. 3005, IFP 230, FFP 560, SIP 1740 nearly stabilized after 3 minutes. Mud Summary 4-24-27-56
			Weight 10.3 #/gal Water loss 6 cc. pH 7.5 Viscosity 57 sec. Cake 2/32" Salinity 1980 ppm NaCl (t)
			Tested: B.O.P. daily.
			Contractor: George Noland
			Drillers: Foster Perryman

	CONDITION AT BEGINNING OF PERIOD							
	HOLE			CASIN	IG SIZE	DEPTH SET		
\$12	Æ	FROM	то					
12]	L/4*	0	840	9	5/8*	823		
7 7	7/8	840	5243					
	2	,						
		,						
D	RILL F		1/2*					

R. W. Olsen

Swisher

East Boundary Butte
(FIELD)
San Juan Co., Utah

(COUNTY)

DRILLING REPORT FOR PERIOD ENDING

April 23, 1956

Section 25
(SECTION OR LEASE)
T.l. S., R.23 E., S.L. M.
(TOWNSHIP OR RANCHO)

DAY			REMARKS
1956	FROM	το	
4-20 21	4913	5214	Drilled 301, treated mud with water, aquagel, impermex, preservative, gypsum.
H-55			D.S.T. 3: 5041-5214: Johnston Testers, Bobtail packers at 5036 and 5041, tailpiece 173' to 5214, perforations 5042-5051 and 5198-5206, air cushion 58' (0.29Bbl), 4 outside pressure recorders, 1-3/4" subsurface bean, 1-1" surface bean. Initial shut in 20 minutes, opened valve 4:50 p.m., immediate strong steady air blow 6 minutes, very strong steady air blow 6 minutes, very strong increasing gas blow 1 hour 45 minutes, gas heading 5 minutes, gas and fluid heading 45 minutes, (pressure 0 to 34 psig), flowed 7 BBL slightly oily Gas Cut mud, tester open 2 hours 40 minutes, shut in 1 hour 23 minutes, fluid loss in annulus 2' or 0.1 BBL, recovery in drill pipe 1612 (20.7Bbls.), slightly oily and slightly muddy, Gas Cut Water, very sulfurous (H ₂ S > 0.04%), salinity 103500 ppm. (t), weight 8.9. #/gallon, mud in pits 660 ppm., 10.4 #/gallon. ISIP 1750, HP 2540, IFP 315, FFP 640, SIP 1720 (stab. after 30 minutes) Gas rate approximately 200 MCF/D.
4-23	5214	5243	Drilled 29 Do.S.T. 4: 5040-5070: Packers failed immediately. Do.S.T. 4A: 5033-5083: Packers failed after dropping bar.
	,		
			Mud Summary
			Weight 10.5 #/gallon Viscosity hh sec. Water loss 7.8 cc. Cake 2/32 in. PH 7.5 Salinity 660 ppm. NaCl(t)
<u>.</u>	CON	IDITION AT	Tested B.O.P. daily Contractor: George Noland
	HOLE	1 00	Drillers: Foster

CONDITION AT BEGINNING OF PERIOD								
	HOLE		CASING SIZE	DEPTH SET				
SIZE	FROM	то						
12 1/4 7 7/8		840 4913	9 5/8"	823				
DRILL I SIZE	PIPE 4	1/2*						

Tested B.O.P. daily
Contractor: George Noland
Drillers: Foster
Perryman
Swisher

WELL NO. ____3

East Boundary Butte
(FIELD)
San Juan Co., Utah
(COUNTY)

PD 4A

DRILLING REPORT FOR PERIOD ENDING

4-19-56

25

(SECTION OR LEASE)
Thuse, R23E., SLBM.
(TOWNSHIP OR RANCHO)

DAY DEPTHS		тнѕ	DWILLDING						
	FROM TO		- REMARKS						
4-1 9	es e	4913	DST 2 4820-4913, Johnston Testers. Ran tester with 2 packers at 4820 and 4816, 4 outside pressure recorders, 3/4" subsurface bean, 1" surface bean, perforations 4821-4834, 32" (0.16 bbls.) air cushion. Tool open 2 hours, 32 minutes, shut in 1 hour, 18 minutes; strong steady blow throughout test. Gas to surface 1 hour, 25 minutes. Rate, nil. Fluid loss in annulus 2" (0.1 bbls.) Recovered 746" (7.83 bbls.) very slightly muddy, gassy water (sulfureous) (H2S > 0.04%)						
			Feet Above Salinity Tester Description (t) NaCl Wt. # Gallon						
			746 Very slightly muddy gassy water 41,250 ppm. 8.8 656 Very slightly muddy gassy water 566 Very slightly muddy gassy water 101,650 ppm. 8.9 386 Very slightly muddy gassy water 82,500 ppm. 8.9 296 Very slightly muddy gassy water 74,250 ppm. 8.8 0 Very slightly muddy gassy water 74,250 ppm. 8.8						
			Mud before test 1320 ppm. (t) ISIP 1510, HP 2680, IFPO, FFP 420, SIP 1510 (stab. after 20 minutes.)						
			Tested BOP Daily.						
		- C-1-0-0	Mud Summary 3-31-56 to 4-19-56						
			Wt. 10.4-10.6 #/Gallon Vis. 40-47 Sec. WL. 5.6-12 cc. F.C. 2-3/32 in. PH 7.5 Salinity 1320-3300 ppm. NaCl (t)						
	co	NDITION A	Contractor: George Noland Drillers: Foster Perryman Swisher T BEGINNING OF PERIOD						

CONDITION AT BEGINNING OF PERIOD								
	HOLE		CASING SIZE	DEPTH SET				
SIZE	FROM	то						
12 1/4*	0	840	9 5/8**	8231				
7 7/8"	840	4913	·	-				
DRILL SIZE	PIPE 1	1/2**						

WELL NO. 3

East Boundary Butte

DRILLING REPORT
FOR PERIOD ENDING

(SECTION OR LEASE)

San Juan Co., Utah

4-19-56

Thus., Rege., SLBM (TOWNSHIP OR RANCHO)

FROM TO					
3-31 1900 2670 Drilled 770. Treated mud with water, aquagel, tannex, soda ash to 4-1 Changed to gypsum base mud at 2670.	Drilled 770. Treated mud with water, aquagel, tannex, soda ash. Changed to gypsum base mud at 2670.				
	and gypsum. Baroid 3-man logging crew started 12:01 AM				
packers at 1704' and 1708', 4 outside pressure recorders, 3/4" sub-surface bean, 1" surface bean, perforations 1709 to 1719, 1807 to 1811, air cushion 33' (0.16 bbl.) Initial shut in 20 minutes, tool open 2 hours, 30 minutes; shut in 1 hour, 17 minutes, strong steady blow	packers at h704' and h708', h outside pressure recorders, 3/4" sub-surface bean, 1" surface bean, perforations 4709 to 4719, 4807 to 4811, air cushion 33' (0.16 bbl.) Initial shut in 20 minutes, tool open 2 hours, 30 minutes; shut in 1 hour, 17 minutes, strong steady blow throughout test. Gas to surface in 50 minutes.				
Feet Above Tester Description Salinity (t) NaCl. 18h! Mud 1400 ppm. 9.8 0' Mud 1500 ppm. 9.6 Mud before test 1650 ppm. (t) ISIP 760, HP 2685, IFP 135, FFP 1 SIP 310 (still rising after 75 minutes). 4-18 4825 4920 Drilled 95'. Corrected depth to 4913' at 4920'. Ran Schlumberg Electrical Survey, Gamma Ray-Neutron Log and Micro Treated mud with water, aquagel, impermex, perservand gypsum.	ger log.				
CONDITION AT BEGINNING OF PERIOD					

CONDITION AT BEGINNING OF PERIOD						
. 1	HOLE		CASING SIZE	DEPTH SET		
SIZE	FROM	то				
12 1/4"	0	840	9 5/8m	823°		
7 7/8**	840	1900				
DRILL I	PIPE 1	1/2"				

East Boundary Butte San Juan County, Utah

DRILLING REPORT FOR PERIOD ENDING

3-30-56

Section 25
(SECTION OR LEASE)

T. 43 S., R. 23 E., SLM (TOWNSHIP OR RANCHO)

DAY	NY DEPTHS		REMARKS VIT				visted.			
	FROM	то			\$ TELEVISION OF THE PERSON OF		and			
			Locati		990' N. of SW corner, 23 E., SLBM, San Juan	section 25, County, Utah.	Noted CON 6-21-56			
		,	Elevat	Tations: D.F. 5371.78 Mat. 5360.10 K.B. 5373.78						
3-24, 25	0	840		d 1:30 P.M. (3-2) ith water, gel.	-56) with 12 1/4° bit,	drilled 840°,	treated mud			
3-26			c b	on 9 5/8", 36#, J-55, LT&C National casing, shoe at 823, (Halliburton) cemented 275 sacks construction cement, last 100 treated with calcium chloride. 10 bbl. water and one wood plug ahead, rubber plug behind, plugs 15* feet apart, did not bump plugs, good cement returns at surface. One centralizer on shoe joint.						
3-27			v t	langed up casing and installed 10 series 900 CK Hydril blow out preventer with accumulator and 10 series 900 double, hydraulic, control gate with pipe rams and complete shut-off rams.						
		1	Tested	B.O.P. and casi	g with 700# for 15 min	utes, O.K.				
3 - 28,	840	1900			Baroid unit started later and gel, tannex,		1. (3-28-56)			
						:				
			Mud Su	mmary						
				t. 10#/gal.						
				isc. 39 sec. ater loss 12.5 c						
				ake 2/32 in.	•					
			p	H 11	9 (4)					
				al. 1100 ppm. Na	1. (0)					
			Tested	B.O.P. daily.						
					,					
		1					·			
	CONDITION AT			was the same of th						
SIZE	HOLE	то	ASING SIZE	DEPTH SET	Contractor:	George Noland				
			, i		Drillers: I	oster				
			. · · · · · · · ·		1	Perryman				
					\$	wisher				
		**	5							
DRIL	L PIPE									
SI	4E.5			· · · · · · · · · · · · · · · · · · ·						

R. W. Olsen Examined by East Boundary Butte Field or Area SAMPLES LAGGED (NOT) SHOWS UNDERLINED % FROM TO Sandstone, red and rare white, slightly calcareous, fine grained, locally 100 60 0 silty and shaly. Siltstone & Shale, dark reddish brown, slightly calcareous, locally sandy. 160 90 60 Sandstone, white calcareous, fine grained. 10 Sandstone, red and rare white, as above. 260 100 160 Siltstone & Shale, as above. 300 90 260 Sandstone, white, as above. 10 Sandstone, dark reddish brown, slightly calcareous, argillaceous, fine grained, Tentative top Kayenta 300'. 360 70 300 white to light greenish gray, calcareous, fine grained,, Tentative top Wingate 3601. 30 Sandstone, Sandstone, dark reddish brown, as above. 95 520 360 Sandstone, white to light greenish gray. 5 Sandstone, medium reddish brown, slightly calcareous, argillaceous, very fine grained, well sorted. 786 100 520 Siltstone, medium reddish brown, very slightly calcareous, argillaceous, sandy, fair indurated. 840 100 786 Siltstone, medium brownish red, and rare light greenish gray, slightly calcareous, very sandy (very fine grained), fairly well 1600 100 840 indurated, trace coarse grained, angular quartz, trace white chert, trace dark gray siltstone. trace black tarry substance, no flourescence, good bright yellow cut fluorescence, dark brown visible cut, may be contamination or gilsonite (?). Tentative top Chinle 970. 940-970: Siltstone, as above. 1660 10 1600 Dolomite, medium grayish brown, sandy, silty, argillaceous, rare inbedded 90 quartz and calcite, rare pyrite, grades into siltstone, I-III VFA, trace white I VFA limestone. Siltstone, as above. 50 1660 1700 Dolomite, as above. 50 Tentative top Shinarump 1700'. Sandstone, medium to coarse grained, subrounded, bentonitic (?), grains 1770 av. 40 1700 frosted, mostly quartz. Siltstone, as above. av. 30 Dolomite, as above, trace white I VFA limestone.

Tentative top Moenkopi 1790 .

Exan	nined by \mathbb{R}	. W. OI	sen 1770 to 3010 To Field or Area East Boundary Butte
FROM	то	%	SHOWS UNDERLINED SAMPLES LAGGED
1770	1790	80	Sandstone, as above.
		20	Siltstone, as above.
1790	1930	100	Clay, medium reddish brown, slightly calcareous, very soft and gummy.
1930	1980	100	Clay, medium reddish brown, light greenish gray, slightly calcareous, bentonitic(?), very soft and gummy, @ 1970 trace coarse grained sand.
1980	2100	80	Sand & siltstone, light gray to light green, medium to coarse grained, occasionally granulated, angular to subangular, slightly calcareous, poorly sorted, predominantly quartz, grains frosted, trace pyrite, trace carbonaceous material.
		20	Clay & siltstone, as above.
2100	2230	60	Sand, medium to granulated, subrounded, well sorted, frosted, predominantly quartzite.
		40	Clay & siltstone, as above, trace pyrite.
2230	2300	80	Shale, medium reddish brown to purple, slightly calcareous, soft.
		20	Sand, as above, trace pyrite.
2300	5)170	95	Shale, varicolored (red, purple, brown, green, yellow), slightly calcareous soft, silty locally.
	÷ .	5	Sand, as above, trace pyrite.
21,10	2700	100	Shale & siltstone, varicolored, predominantly red, green, orange, slightly calcareous, fair induration, trace quartz sand, trace while limestone, trace carbonaceous material.
2700	2820	95	Siltstone, bright brownish red to orange, calcareous, very argillaceous,
		5	soft. Shale & siltstone, varicolored, as above.
			Trace white limestone, trace parite, trace quartz sand, trace carbon-aceous material.
2820	2950	100	Siltstone, bright brownish red, rare green, calcareous, very argillaceous, soft.
2950	3010	av. 8	Trace white limestone, trace quartz sand. Siltstone, as above.
			5 <u>Limestone</u> , varicolored (green, white, gray, brown) I-III VFA.

Trace quartz sand, trace light green, calcareous, very fine grained, chloritic quartz sandstone; 2 2980 begins trace anhydrite.

Exa	mined by R. W.	01sen 3010to 3280 to	Field or Area East Boundary Butte NOT
FROM	то %	SHOWS UNDERLINED	SAMPLES /LAGGED
3010	3230 av. 90	Siltstone, as above.	
	10	Sandstone, as above, varicolore sand.	d limestone, gypsum or anhydrite, quartz
3230	3280 av. 90	Siltstone, light grayish green, bentonitic (?), chlori	slightly calcareous, sandy, argillaceous, tic.
	10	Limestone, varicolored, siltsto	ne (brown); trace anhydrite, trace quartz

Examined by R. W. Olsen 3280 to 3470

				NOT
_	FROM	ТО	%	SHOWS UNDERLINED SAMPLES/ LAGGED
	3280	3320	av. 60	Siltstone, light grayish green, slightly calcareous, sandy, argillaceous, bentonitic(?), chloritic.
			40	Varicolored limestone, brown siltstone, anhydritic, quartz sand, dark gray siltstone.
	3320	3340	85	Limestone, light gray to light green, I VFA.
			15	Siltstone, as above.
	3340	3350	10	Limestone, light brown, I VFA.
			90	Shale and siltstone, varicolored, calcareous.
	3350	3360	100	Shale and siltstone, as above, siltstone, grading in part to sandstone, very fine grained, calcareous.
	3360	3380	10	Limestone, tan to medium gray, I VFA.
			10	Sandstone, tan, very fine grained, calcareous.
			80	Shale and siltstone, varicolored, calcareous, with anhydrite inclusions.
	3380	3390	30	Limestone, tan, I VFA.
		4,	10	Sandstone, as above.
		9 10	60	Shale and siltstone, as above.
	3390	3410	100	Shale and siltstone, as above, with minor anhydrite inclusions.
	3410	3430	5	Limestone, as above.
			95	Shale and siltstone, varicolored, calcareous.
	31,30	3440	10	Limestone, white to tan, I/II VFA.
			90	Shale and siltstone, as above.
	3440	3450	20	Limestone, tan, I VFA.
			Trac	e chert.
			80	Shale and siltstone, as above.
	3450	3460	100	Shale and siltstone, as above, with anhydrite inclusions, siltstone grading in part to sandstone, very fine grained.
	3460	3470	10	<u>Limestone</u> , as above.
			90	Shale and siltstone, as above.

Examined by J. M. Burns 3470 to 3795

	FROM	ТО	%	SHOWS UNDERLINED SAMPLES / LAGGED
	3470	3480	100	Shale and siltstone, varicolored, calcareous.
	3և80	3490	20	Sandstone, white to light green, very fine grained.
			80	Shale and siltstone, as above.
	3490	3510	100	Shale and siltstone, as above.
	3510	3530	50	Sandstone, as above, very calcareous, grading in part to sandy limestone.
			50	Shale and siltstone, as above.
	3530	3550	10	Sandstone, as above.
			90	Shale and siltstone, as above with anhydrite inclusions.
	3550	3560	100	Shale and siltstone, as above.
	3560	3570	50	Limestone, tan to grayish green to medium gray, I VFA, very sandy, grading in part to very calcareous, very fine grained, sandstone.
			50	Shale and siltstone, varicolored, predominantly reddish brown, calcareous.
	3570	3580	50	Sandstone, as above.
			50	Shale and siltstone, as above.
	3580	3600	50	Limestone, as above with minor anhydrite inclusions.
	•		50	Shale and siltstone, as above.
	3600	3640	100	Shale and siltstone, as above.
	3640	3650	10	Sandstone, tan to grayish green, very fine grained, calcareous.
		•	90	Shale and siltstone, as above.
	3650	3670	100	Shale and siltstone, as above.
	3670	3680	10	Sandstone, white to green, very fine to fine grained, calcareous.
			90	Shale and siltstone, as above.
	3680	3780	100	Shale and siltstone, as above.
,	3780	3785	10	Sandstone, white to light green, very fine grained, calcareous.
			90	Shale and siltstone, as above.
	3785	3795	100	Shale and siltstone, as above, with anhydrite inclusions.

Examined by <u>J. M. Burns</u> <u>3795</u>to <u>395</u>0

	_		to	Field or Area	East Boundary E	butte
FROM	то	%	SHOWS UNDERLINED	SAI	MPLES /LAGGED	
3795	3800	100	As above.			
	₹"	trace	limestone, I VFA.			
3800	3830	100	Shale and siltstone, as above.			
3830	3840	30	Sandstone, light reddish brown,	very fine gr	ained, calcareous	s, argillaceous
**		70	Shale and siltstone, as above.			
3840	3850	10	Sandstone, as above.			
		90	Shale and siltstone, as above.			
3 850	3855	100	Shale amd siltstone, as above.			
3855	3860	10	Sandstone, as above.			
		90	Shale and siltstone, as above.			
3860	3880	100	Shale and siltstone, as above.			
3880	3895	40	Sandstone, as above.			
		60	Shale and siltstone, as above.			•
3895	3905	10	Sandstone, as above.			
	¥	90	Shale and siltstone, as above.			
3905	3910	5	Limestone, medium gray to brown	, I VFA.		•
	**	95	Shale and siltstone, as above.			
39 10	3915	5	Limestone, white to pink, I VFA	, fossilifero	ous.	
		95	Shale and siltstone, as above.			
3915	3920	100	Shale and siltstone, as above.			
		trace	chert.			
3920	3925	100	Shale and siltstone, as above.			
		trace	limestone, II/I VFA, sandy.			
3925	3935	80 2 0	Limestone, white to gray, I/II Shale and siltstone, as above.	VFA, sandy in	n part.	
3935	3940	50	Limestone, as above.			
		50	Shale and siltstone, as above.			
3940	3 945	25	Limestone, as above.			
		25	Sandstone, as above.			
		50	Shale and siltstone, as above.			
3945	3950	5	Limestone, as above.			
		10	Sandstone, as above.			
		85	Shale and siltstone, as above.			

Examined by M. Burns 3950 to 1235 R. W. Olsen to Field or Area East Boundary Butte				
		M. Wr		
FROM	то	%	SHOWS UNDERLINED SAMPLES / LAGGED	
3 95 0	3955	10	Sandstone, very fine grained, as above.	
. •		10	Sandstone, light green, very fine grained, siliceous.	
		80	Shale and siltstone, as above.	
3955	3960	10	Limestone, cream to light gray, I/III VF-FA.	
•		20	Sandstone, very fine grained, calcareous, argillaceous, as above.	
		70	Shale and siltstone, as above.	
3960	3965	5	Limestone, as above, sandy in part.	
		10	Anhydrite, white, fine crystalline.	
		Trace	e sandstone, as above.	
4. 4 4		85	Shale and siltstone, as above.	
3965	3970	100	Shale and siltstone, as above.	
		Trace	limestone, brown, I VFA, anhydritic.	
3970	3980	10	Limestone, grayish green, I VFA, sandy, grading in part to sandstone, very fine grained.	
		90	Shale and siltstone, as above.	
3980	3985	100	Shale and siltstone, as above.	
3985	3995	90	Shale and siltstone, as above.	
		10	Anhydrite, white, very fine to fine, crystalline.	
39 9 5	4100	100	Shale and siltstone, medium reddish brown to medium greenish gray, calcar-	
			eous, slightly sandy, soft. Trace white sandy limestone, trace anhydrite, trace pyrite, trace	
L100	4115	90	Shale and siltstone, as above.	
4.200	Children C		Colif Device Strategies production and Color Col	
4115	4125	10 100	Anhydrite and gypsum, trace quartz. Shale and siltstone, as above, trace anhydrite, trace pyrite, trace quartz.	
4125	4135	100	Siltstone, grayish green, brown, red, calcareous.	
4125	4225	100	Siltstone and shale, red, grayish green, slightly calcareous to calcareous.	
4225	4235	90 '	Siltstone, as above.	
		10	Limestone, grayish green, I VFA, argillaceous.	

Examined by R. W. Olsen 4235 Juli 10

3 Well E. M. Wright East Boundary Butte Field or Area FROM % SHOWS UNDERLINED SAMPLES LAGGED (NOT) TO Siltstone, orange to red, gray, calcareous. 7570 90 4235 Sandstone, white to light green, very calcareous. 10 80 Siltstone, as above. 4240 J=300 10 Sandstone, as above. Limestone, light gray to light prown, I VFA, argillaceous, trace 10 milky to light brown chert from 4255. 4300 4305 70 Siltstone, as above. Limestone, white, I VFA. 30 4310 90 Siltstone, as above. 4305 10 Limestone, as above. Shale, reddish orange, brown, sandy, slightly calcareous. 4310 4315 60 Limestone, medium gray to white, I VFA, slightly sandy, argillaceous. ЙΟ 4315 上320 50 Shale, as above. Sandstone, brown, calcareous, very fine grained. 50 4320 4340 50 Limestone, as above. 40 Sandstone, as above. Shale, as above. 10 Limestone, as above, trace amber quartz and chert. 4340 4350 70 10 Sandstone, as above. 10 Shale, as above. Sandstone, white, very calcareous, fine grained. 10 Shale, reddish orange, red, calcareous. 4350 4380 50 20 Siltstone, brown, slightly calcareous. 30 Limestone, as above. Limestone, medium gray to white, I VFA, argillaceous, slightly sandy, 4380 1410 80 trace chert. 20 Shale, as above.

Examined by R. W. Olsen 4410 to 4430

E. M. Wright to

Field or Area <u>East Boundary Butte</u>

FROM	ТО	%	SHOWS UNDERLINED	SAMPLES LAGGED
المارات المار		slightly calcareous.		
		30	Limestone, medium gray to white,	I VFA, argillaceous, slightly sandy.
		20	Siltstone, dark red, calcareous,	with some quartz grain inclusions.
•		10	Shale, light maroon, very friable	·
14120	山430	60	Shale, light maroon, as above.	
		20	Siltstone, varicolored.	
· .		20	Limestone, as above.	

NOTE: Samples are lagged after 44257.

Examined by R.W. Olsen 4430 to 4555

				TOTAL OF ATEG
FROM	ТО	%	SHOWS UNDERLINED	SAMPLES LAGGED
7430	74740	50	Shale and Siltstone, varicolored,	calcareous to non-calcareous.
		30	Limestone, medium gray to white,	I VFA, argillaceous, slightly sandy.
		20	Shale, purple, non-calcareous, wi	th small calcite inclusions.
रोगेरी 0	4450	50	Siltstone, varicolored, as above.	
		40	Shale, purple, as above.	
	•	10	Limestone, as above.	
14450	4470	50	Siltstone, varicolored, as above.	· •
		20	Shale, maroon and light gray, mor	n-calcareous.
		20	Shale, purple, as above.	
		10	Limestone, as above, trace quartz clear to frosted.)	grains (rounded to subangular,
4470	4500	30	Shale, light gray, non-calcareous	
		20	Sandstone, brown, calcareous, fir	ne grained.
		20	Siltstone, varicolored, as above.	
		20	Limestone, as above.	
		10	Shale, purple, non-calcareous.	
4500	4535	40	Siltstone, as above.	
		30	Limestone, as above.	
		30	Shale, as above.	
4535	4550	30	Shale, orange to red, grayish gre	een, calcareous.
		30	Siltstone, brown, calcareous.	
		30	Limestone, light gray to white, I	VFA.
		10	Sandstone, white, very calcareous	3. • • • • • • • • • • • • • • • • • • •
4550	4555	50	Shale, orange to red, gray green,	calcareous.
		30	Siltstone, as above.	
		20	Limestone, as above.	

Examined by R. W. Olsen 4555 to 4660

	_			or Alec
FROM	ТО	%	SHOWS UNDERLINED	SAMPLES LAGGED
4555	4565	50	Limestone, gray, I VFA, argillaceous.	
		40	Siltstone, brown, calcareous.	
		10	Shale, red to orange, calcareous.	
4565	4570	60	Siltstone, brown, calcareous.	
		20	Limestone, light gray to white, I VFA.	
		20	Shale, red to orange, calcareous,	
4570	4575	80	Limestone, as above.	
		20	Shale and Siltstone, as above.	
4575	4580	50	Limestone, gray, I VFA, argillaceous.	
		50	Siltstone, brown, calcareous.	
4580	4605	40	Siltstone, orange to red, brown, sligh	tly calcareous to calcareous.
		30	Shale, gray green, calcareous, slightly	y micaceous.
		30	Limestone, gray, gray green, I VMA, ar	gillaceous, slightly sandy.
4605	4625	40	Shale, varicolored.	
		30	Siltstone, as above.	
		20	Limestone, as above.	
		10	Shale, gray green, as above.	
4625	4635	40	Shale, light gray to greenish gray, no	n-calcareous, micaceous.
		30	Shale and Siltstone, varicolored.	
		30	Limestone, as above.	
4635	4650	50	Siltstone, varicolored.	
		20	Shale, gray green to gray, non-calcared	ous.
		20	Limestone, as above.	
· •		10	Shale, red, calcareous. Trace black	mafics.
4650	4660	40	Limestone, as above.	
		30	Siltstone, as above.	
		20	Shale, gray green.	
		10	Shale, red.	

Examined by R. W. Olsen 4660 4735 E. M. Wright to

FROM	то	%	SHOWS UNDERLINED SAMPLES LAGGED			
4660	4675	40	Limestone, as above.			
		30	Shale, gray green.			
		20	Shale, red to purple.			
		10	Siltstone, as above.			
4675	4680	55	Limestone, light yellow to medium gray, I VFA.			
		30	Sandstone, white, very calcareous, almost sandy. II FA limestone, very friable.			
		10	Shale, varicolored.			
		5	Chert, tan.			
4680	4690	50	Limestone, dark gray to white, IVFA, argillaceous.			
		20	Siltstone, brown, reddish brown.			
		30	Shale, varicolored.			
4690	4695	30	Shale, red.			
		30	Siltstone, as above.			
		30	Limestone, dark gray, I VFA, argillaceous.			
		10	Limestone, light tan, I VFA, dolomitic.			
4695	4700	30	Siltstone, brown, clacareous.			
		30	Limestone, gray, I VFA, argillaceous.			
		20	Limestone, light tan, as above.			
		20	Siltstone, greenish gray, calcareous.			
4700	4720	60	Limestone, light tan, as above.			
		30	Limestone, dark gray, argillaceous.			
÷ ¥		10	Siltstone, red, calcareous.			
4720	4725	70	Siltstone, varicolored.			
•		30	Limestone, dark gray, light tan, I VFA.			
4725	4735	50	Limestone, dark gray, I VFA, slightly sandy, very argillaceous.			
		40	Siltstone, as above.			
		10	Limestone, light tan, I VFA, dollomitic?			

FROM	то	%	SHOWS UNDERLINED	SAMPLES LAGGED		
4735	4740	60	Siltstone, red, gray green.			
		40	Limestone, dark gray, as above.			
4740	4745	70	Limestone, dark gray, brown, argillaceous.			
		20	Shale and Siltstone, varicolored,	calcareous.		
		10	Limestone, light tan, I VFA, dolo	mite, trace dark tan chert.		
4745	4750	60	Shale and Siltstone, varicolored,	Shale and Siltstone, varicolored, as above.		
		40	Limestone, dark gray to brown.			
4750	4755	40	Shale and Siltstone, varicolorel,	as above.		
		40	Limestone, dark gray, I VFA, argi	llaceous, slightly sandy.		
		20	Limestone, white to light yellow,	I VFA.		
4755	4760	50	Limestone, dark gray, I VFA, argil	laceous, slightly sandy.		
		20	Limestone, white to light yellow,	I VFA.		
		20	Shale and Siltstone, varicolored,	calcareous.		
		10	Sandstone, white, very calcareous	, very fine grain.		
4760	4770	50	Limestone, dark gray, as above. 4764-4770: trace light yellow cut fluorescence in limestone.			
		40	Dolomite, light brown to brown, I	VFA, limy.		
		10	Shale and Siltstone, as above.			
4770	4775	40	Limestone, dark gray, as above.			
		20	Dolomite, as above.			
		30	Limestone, white, I VFA, slightly	sandy.		
		10	Shale and Siltstone, as above.			
47 7 5	4780	50	Limestone, dark gray to white, I	VFA.		
		30	Siltstone, varicolored, calcare ou	s, slightly sandy.		
		20	Siltstone, gray green, micaceous	(?)		
4780	4785	50	Limestone, dark gray to medium or	own, I VFA.		
		40	Shale, gray green, calcareous, si	lty, to very fine grained sand.		
		10	Chert, white to light brown, clea	r to milky.		

Examined by $\frac{E. \text{ M Wright}}{R. \text{ W. Olsen}} \stackrel{4785}{----}_{\text{to}} \stackrel{4810}{----}$

FROM	ТО	%	SHOWS UNDERLINED SAMPLES LAGGED
4785	4790	40	Shale, brown to black, very calcareous, silty to very fine grained sand.
		40	Limestone, as above.
		20	Limestone, light tan, I VFA, dollomitic (?)
4790	4800	40	Shale, gray green, calcareous, slightly silty.
		30	Limestone, white, II FA, very soft, slightly sandy, chalky.
		30	Limestone, gray, argillaceous.
4800	4810	50	Limestone, dark gray, I VFA, argillaceous.
		20	Shale, gray green, calcareous.
		20	Dolomite, light tan, I VFA, limy.
		10	Limestone, white, I-II VF-FA (crystals with chalky matrix)

Examined by E. M. Wright 4810-4845

	•		10P	iele or Ares East Boundary Butte
FROM	TO	%	SHOWS UNDERLINED	SAMPLES LAGGED
4810	4815	30	Limestone, white, II VF-FA	
		30	Dolomite, light tan, limy, I VFA	4777-4825: Trace yellow fluorescence in mud, probably contamination.
		20	Limestone, gray, argillaceous.	4800-05: 1% sample fluorescence
		10	Shale & Siltstone, varicolored.	light yellow cut fluorescence, in I VFA
		10	Chert, grains, round to subrounded	14mestone
4815	4820	60	Limestone, white to light gray, I-chalky matrix, fossilii	-II VFA, crystalline with some partial ferous (?).
		30	Idmestone, gray, argillaceous.	
		10	Shale, gray green, calcareous, sil	ty to very finely sandy.
4820	4825	60	Limestone, dark gray, argillaceous	s, fossiliferous, foram (?), crinoid stems.
		30	Limestone, white, as above.	
		10	Shale, gray green, silty.	
4825	4830	80	Siltstone, varicolored, calcareous	in the second of
		20	Limestone, white to gray, dolomiti	ie (?).
4830	4835	50	Siltstone, dark brown, calcarecus,	, slightly to very sandy.
		20	Shale, gray to light green, calcar	reous, slightly silty.
		20	Limestone, light grayish brown, I-	III VF-MA, trace B.
		10	Limestone, dark gray, argillaceous	
4835	4840	30	Limestone, medium gray, I VFA.	
		20	Limestone, light tan to light tan	gray, oolitic, as above.
		20	Limestone, light tan gray, I VFA.	
		15	Shale, purple and yellow mottled,	non-calcareous.
		15	Dolomite, light tan, calcareous, I	VFA.
4840	4845	50	Limestone, dark gray, I VFA, argil	laceous.
		30	Siltstone, brown, as above.	
		20	Shale, grayish green, calcareous,	slightly silty.

Examined by W. R. Wright 4845-4855

R. W. Olsen to

FROM	ТО	%	SHOWS UNDERLINED	SAMPLES LAGGED (NOT)
4845	14850	40	Siltstone, brown, calcareous.	
		30	Dolomite, grayish brown, calcareous, I	VFA.
•		. 10	Shale, grayish green, calcareous, silty	to very finely sandy.
		10	Shale, purple, yellow, non-calcareous.	
		10	Limestone, dark gray, I VFA.	
4850	4855	40	Limestone, dark brown, I VF-FA, slightl	y fossiliferous.
	4.	30	Limestone, white to light yellow.	
		20	Shale, grayish green, as above.	
		10	Dolomite, as above, trace chert.	

Examined by E. M. Wright 4855-4910 R. W. Olsen 10

FROM	ТО	%	SHOWS UNDERLINED SAMPLES LAGGED			
10						
4855	4860	30	Limestone, dark brown, I VF-FA, slightly fossiliferous.			
		30	<u>Limestone</u> , white, I VFA.			
		20	Shale, dark gray, calcareous, fossiliferous (?)			
		20	Shale, greenish gray.			
4860	4870	40	Limestone, dark grayish brown to dark brown, I VFA.			
		30	Limestone, tan, fossiliferous, forams.			
		20	Shale, gray.			
		10	Chert, black to dark brown.			
4870	4875	80	Shale, gray to varicolored.			
		20	Limestone, light tan, IVFA, fossiliferous (?)			
4875	4880	70	Siltstone, brown to grayish green, in part varicolored, calcareous, calcite inclusions.			
		30	Limestone, dark gray to brown.			
4880	4890	30	Limestone, dark gray to dark brown, very argillaceous, fossiliferous (?), I VFA.			
		30	Limestone, white, I VFA in part II FA.			
		20	Shale, gray to green, calcareous, slightly silty.			
		20	Shale, dark gray to black, calcareous.			
4890	4900	50	Limestone, dark gray, argillacecus, I VFA.			
		20	Limestone, white, I VFA in part II FA, slightly sandy.			
		10	Siltstone, dark gray, calcareous.			
		10	Shale, greenish gray, calcareous.			
		10	Sandstone, white, very calcareous, very fine grained.			
4900	4905	70	Siltstone, medium gray to light grayish green.			
		20	Siltstone, brown to red.			
		10	Limestone, dark gray, as above.			
4905	4910	80	Siltstone, medium gray to light gray. (4845-55 Trace fine spotty black			
		20	as above. Siltstone, brown, as above. (4860-70 Trace light yellow cut			

Examined by E. M. Wright 4910-4920
R. W. Olsen to Field or Area East Boundary Butte

FROM	ТО	%	SHOWS UNDERLINED	SAMPLES L	AGGED
4910	4915	50	Limestone, dark gray to brown, argi	llaceous.	
		40	Shale, gray, as above.		
		10	Siltstone, brown to grayish brown. trace chert with crinoic	ds.	
4915	4920	40	Limestone, dark gray to dark brown,	, I VFA.	
		40	Limestone, light tan, I VFA.	1	
		20	Shale, light gray, as above.		

4920 4990 Evamined by E. M. Wright

30

20

Exan	nined by		03	Well	3 East Boundary Butte		
5504	·			Field or Area			
FROM	ТО	%	SHOWS UNDERLINED		MPLES LAGGED		
4920	4925	60	Siltstone, medium brown to gr calcareous.	ay brown to gra	y, dolomitic, slightly		
		40	Dolomite, light tan to brown, IVFA, slightly calcareous.				
4925	4930	70	Dolomite, gray green to brown pyritic.	olomite, gray green to brown, IVFA, slightly calcaresou, colitic (?), pyritic.			
		.30	Siltstone, as above.				
4930	4940	75	Dolomite, gray brown, IVFA.				
		25	Chert, black, occassional cal	cite streaks.			
4940	4945	100	Dolomite, as above.				
4945	4955	80	Dolomite, as above.				
		20	Limestone, white in part mott	led tan, IVFA,	fossiliferous.		
4955	4960	70	Dolomite, grayish brown, IVFA	•			
		30	Siltstone, medium brown to grayish brown, dolomitic, fossiliferous.				
4960	4965	90	Dolomite, light brown to dark oolitic.	brown, IVFA, f	ossiliferous, very slightly		
		10	Chert, largley translucent fr	agments.			
4965	4970	50	Dolomite, as above.				
		30	Siltstone, grayish brown, as	above.			
		20	Sandstone, brown, very fine gr	ained, calcareo	us.		
4970	4975	60	<u>Dolomite</u> , as above, slightly	pyritic.			
		30	Sandstone, white, medium gray cemented to uncons		calcareous, poorly		
		10	Sandstone, brown, calcareous,	very fine gra	ined.		
4975	4980	50	Sandstone, light green to yel	low brown, fine	grained, micaceous.		
		50	Shale, dark red to purple, sl	ightly calcareo	us.		
4980	4985	50	Sandstone, light gray, fine g	rained, argilla	ceous, micaceous.		
		30	Shale, as above.				
	•	20	Siltstone, light gray, sandy,	dolomitic, tra	ce chert fragments.		
4985	4990	50	Shale, light gray, slightly t	o non-calcareou	s, rare pyrite.		

Shale, light gray, sandy, slightly calcareous.

Sandstone, white, medium gray, poorly cemented.

Examined by E. M. Wright 4990 5035

R. W. Olsen 10

Well 3
Field or Arec _____East Boundary Butte

FROM	то	%	SHOWS UNDERLINED SAMPLES LAGGED	
4990	4995	60	Siltstone, light gray, dolomitic, very finely sandy, micaceous, pyritic.	
		40	Shale, light gray, non-calcareous, micaceous.	
4995	5000	40	<u>Limestone</u> , dark gray to medium brown, IVFA, argillaceous, slightly dolomitic.	
. •		20	Dolomite, dark brown, IVFA, slightly calcareous, fossiliferous.	
		20	Sandstone, white, medium grained.	
		20	Shale, gray, non-calcareous, micaeous.	
5000	5010	60	Siltstone, light gray, fine grain sandy, non-calcareous.	
		20	Sandstone, green, fine grained, non-calcareous.	
		20	Limestone, medium brown, IVFA, slightly dolomitic.	
5010	5015	50	Siltstone, light gray, micaceous, sandy, slightly dolomitic, soft.	
		50	Shale, medium gray.	
5015	5020	90	Siltstone, light gray, micaceous, sandy, very soft, in part grades to sandy shale.	
		10	Siltstone, light green, very soft, non-calcareous.	
5020	5025	90	Siltstone, light gray, shaly, micaceous in part, soft, slightly dolomitic.	
		5	Sandstone, white, slightly calcareous, fine to medium grain, soft, argillaceous, quartzitic.	
		5	Siltstone, medium brown, soft, dolomitic.	
5025	5030	60	Siltstone, light gray, dolomitic, as above.	
		30	Shale, light gray, slightly sandy.	
		5	Dolomite, light gray, IVFA.	
		5	Siltstone, light brown, dolomitic.	
5030	5030 5035 80 Siltstone & Shale, light gray, as above.		Siltstone & Shale, light gray, as above.	
		10	Limestone, white to light gray, IVFA.	
		10	Dolomite, light to dark gray, IVFA.	

Examined by E.M. Wright 50350 5050 R. W. Olsen ______to _____

Field or Area East Boundary Butte

FROM	то	%	SHOWS UNDERLINED	SAMPLES LAGGED	
5035	5040	50	Siltstone, light gray, as above, slighlty shaly.		
		40	Siltstone, light reddish brown, soft, dolomitic.		
		5	Limestone, white, as above.		
		5	Dolomite, as above.		
5040	5045	60	Shale, light to dark grayish green, dolomitic, soft, silty in part, micaceous and carbonaceous in part.		
		30	Limestone, light to dark brown, IVFA, do	olomitic.	
		10	Shale, light to dark red, non-calcareous	S.	
5045	5050	50	Shale, light to dark grayish green, silty	ale, light todark grayish green, silty.	
		30	Limestone, as above.		
		20	Siltstone, medium to dark brown, slightly calcareous.		

Shows: 5040-50 Approximately 0.1% sample fluorescence, trace light yellow cut fluorescence (In IVFA ls). Trace light spots and stains on samples.

Examined by E.M.Wright 5050 to 5100

East Boundary Butte Olsen FROM TO % SHOWS UNDERLINED SAMPLES LAGGED 5055 Limestone, light brown, I-II VFA, slightly dolomitic and shaly. 45 5050 45 Shale, medium to dark gray, slightly calcareous, micaceous. Siltstone, light to dark reddish brown, slightly calcareous, soft. 10 5055 5060 50 Limestone, as above. **h0** Shale, as above. Quartz grains. medium to coarse, subrounded. 10 5060 5065 60 Shale, as above. 40 Limestone, as above. Shale, light red, mottled dark red and yellow, soft, non-calcareous. 5065 5070 100 Shale, light to medium gray, slightly calcareous, micaceous. 5070 5075 60 Dolomite, white to light brown, I-II VFA. h05075 5080 50 Shale, gray, as above. Shale, light red to mottled dark red, as above. 30 Limestone, as above, fossiliferous. 20 5080 5085 50 Shale, light to dark gray, as above. Limestone, as above. 40 Shale, light red to mottled dark red. 10 5085 5090 60 Dolomite, white to light gray, I-II VFA. 40 Shale, light to dark gray, as above. 5090 5095 60 Shale, light to dark gray, as above. Shale, light brownish red, calcareous, soft. 30 Dolomite, white to light gray, as above. 10 5095 5100 50 Shale, mottled red, calcareous to non-calcareous, soft, Shale, light to dark gray, as above, trace anhydrite inclusions. 30 Limestone, white to light gray. I VFA. 20

Examined by E.M. Wright 5100 to 5170 R.W. Olsen East Boundary Butte FROM SHOWS UNDERLINED TO SAMPLES LAGGED Shows: (5055-60) Approximately 0.1% sample fluorescence, trace light. (5070-75) yellow cut fluorescence (in I VFA limestone.) (5080-85)(5095-5105) black spots and stains on sample. 5100 5105 LO Limestone, white to light gray, I-II VFA. 30 Shale, light to dark gray, slightly calcareous. 20 Dolomite, white to light gray, as above. 10 Shale, mottled red, as above, 5105 5115 90 Dolomite, light to dark gray, I-II VFA, slightly argillaceous and pyritic. 10 Shale, mottled, as above. 5115 5120 70 Shale, medium gray, silty, dolonitic. 3Ö Dolomite, light tan to gray, I VFA, very slightly limy. 5120 5125 70 Shale, as above. 30 Dolomite, dark gray to medium brown, with calcite inclusions and seams. 5125 5130 80 Dolomite, as above. 10 Sandstone, white, very fine grained, dolomitic, very slightly calcareous. 10 Dolomite, white, I-II VFA, limy. 5130 5135 80 Shale, medium gray, slightly calcareous, dolomitic, uniform texture. 20 Dolomite, light tan, as above. 5135 5140 55 Limestone, light gray to medium brown, I VFA, dolomitic. 70 Shale, medium gray, slightly calcareous, silty. . 5 Chert, light amber, slightly milky. 5140 5150 80 Limestone, white to light tan, I VFA, fossiliferous. 20 Shale, medium gray, as above. 5150 5160 100 Limestone, white, I-II VFA.

<u>Limestone</u>, white to medium brown, I VFA, fossiliferous, colitic (?).

Shale, medium gray, slightly silty, dolomitic.

5160

5170 70

30

Examined by E.M. Wright 5170 to 5195

R.W. Olsen to _____ fo ____ Field or Area East Boundary Butte

FROM	ТО	%	SHOWS UNDERLINED	SAMPLES LAGGED
5170 5	51 7 5	60	Limestone, as above.	
		40	Shale, as above,	
5 17 5 5	5180	70	Limestone, as above,	
		30	Shale, as above, slightly sandy (very f	finely grained).
5180 5	5195	90	Limestone, white to light tan, dolomiti	c, fossiliferous.
		10	Shale, as above,	

Shows: 5120-50: Approximately 0.1% sample fluorescence, trace light yellow cut fluorescence (in I VFA limestone). Small black stains or spots along fractures or in grain boundaries.

Exa		Well 3
	R.W. C R. Kni	<u>Isen</u> to Field or Area <u>East Boundary Butte</u> ght
FROM	TO %	SHOWS UNDERLINED SAMPLES LAGGED
5195	5200 80	<u>Limestone</u> , as above.
	20	Limestone, white to light tan, colomitic, fossiliferous in part.
5200	5205 80	Limestone, light tan, I VFA.
	20	Limestone, white, I-II VFA, limestone crystals with chalky matrix.
5205	5210 100	Limestone, light brown, I VF-FA, with fragments light brown chert.
5210	5215 50	Limestone, as above.
	50	Dolomite, pale gray, III FA.
5215	5220 100	Shale, medium gray, calcareous.
5220	5225 70	Shale, as above.
	30	Limestone, light gray, I VFA.
5225	5230 50	Shale, as above.
	50	Limestone, light brown, IVF_FA.
5230	52 3 5 70	Limestone, as above.
	30	Shale, as above.
5235	5240 60	Shale, medium gray, silty, calcareous.
	40	<u>Limestone</u> , as above.
5240	5245 100	Limestone, light brown, I-IIIF-M., very dolomitic.
5245	5250 100	Limestone, as above, (sample very poor)
5250	5255 1 00	Limestone, light brown, I-III F-MA.
5255	5260 100	Limestone, tan, I VFA.
5260	5265 100	Dolomite, light gray, III FA with trace B.
526 5	5270 100	Dolomite, tan, calcareous, III FA.
5270	5275 100	<u>Dolomite</u> , as above.
5275	5285 100	Shale, medium gray, calcareous.
5285	5290 100	Limestone, light gray brown, I VFA.

Exan	Ř	.M. Wo	right 5290 to 5300 lsen to ght	Well Field or Area	East Boundary Butte	
FROM	ТО	%	SHOWS UNDERLINED	SA	MPLES LAGGED	
5290	5295	70	Dolomite, tan, III FA			
		30	Limestone, as above. Trace light gray, che	ert fragments.		
52 95	5300	50	Dolomite, as above.			
·		30	Shale, medium gray, calcareous.			
		20	Limestone, as above.	:		

Examined by B. Robinson 5300 to 5410

R. Knight 10 _____

Field or Area East Boundary Butte

FROM	то	%	SHOWS UNDERLINED	SAMPLES LAGGED
***	<u> </u>			
5300	5305	50	Dolomite, tan, III FA.	
		30	Limestone, medium gray, calcareous.	
		20	Limestone, light gray brown, I WFA.	
5305	5310	40	Dolomite, as above.	
. •		40	Shale, medium gray, calcareous.	
		20	Limestone, light gray brown, I VFA.	
5310	5315	50	Limestone, tan-gray, I VFA.	
		50	Shale, as above.	
5315	5325	70	Shale, as above.	
3 1		30	Limestone, gray & brown, I VFA.	
5325	5330	100	Shale, as above.	
5330	5335	100	Limestone, light brown, I VFA.	
5335	5340	100	Limestone, tan, I VFA, pseudoolitic.	
5340	5350	100		e brown chert fragments, crinoid stems.
5350	5355	100	Limestone, light gray, I-II VF-FA.	
5 3 55	5 360	50	Limestone, as above.	
		50		mankana Birki araw TTT B A D
	 .			orescence, poor yellow cut fluorescence.
5360 5370	53 70 5380	100 100	Limestone, light gray-tan, I VFA with Limestone, light gray, I VF-FA.	light gray chert fragments.
5380	5385	100	Limestone, light brown, I VFA.	
5385	5390	100	Limestone, gray brown, I VFA.	
5390	5395	100	Limestone, as above.	
5395	5400	100	Limestone, white, I-III VF-FA.	
5400	5405	100	Dolomite, white, III M-LA + trace B ₁	5. corals, appears clastic.
5405	5410	50	Dolomite, as above. (clastic with lim	
		50	Dolomite, light gray, III M-LA + 10% poor yellow cut fluorescence	B5. Trace spotty yellow fluorescence,

Examined by B. Robinson 5110 to 5525
R. Knight to

Well 3
Field or Area East Boundary Butte

FROM	то	%	SHOWS UNDERLINED SAMPLES LAGGED
5410	5415	100	Dolomite, buff - light gray, III M-LA + 10% B5, shows as above.
5415	5420	100	Dolomite, as above, * 20% B ₁₋₅ , with light brown Chert fragments.
5420	5425	100	Dolomite, as above, * 10% B ₁₋₅ .
5425	5430	100	Dolomite, light gray, III FA.
5430	5435	100	Dolomite, as above.
5435	5440	100	Limestone, light brown, III FA, very dolomitic, trace spotty yellow fluorescence, poor yellow cut fluorescence.
5440	5445	100	Limestone, as above, I-III VF-FA, dolomitic, rare fusulinid.
5145	5450	100	Limestone, as above, no fusulinid.
5450	5455	100	Limestone, light gray brown, I-III VFA, fragments light gray chert, few corals.
5455	5460	100	Limestone, as above.
5460	5465	100	Limestone, light brown, speckled brown, I-III VF-FA, rare coral fragments.
5465	5470	80	Limestone, as above.
		20	Shale, purple, soft, flaky.
5470	54 7 5	100	Limestone, light gray, I-III VF-FA, rare coral fragments.
5475	5500	100	Limestone, tan, I-III VF-FA, oolitic in part, some coral fragments.
5500	5510	100	Limestone, tan, I VFA, abundant coral, some chert.
5510	5515	60	Limestone, as above.
		40	Shale, light green gray, silty.
5515	5520	80	Limestone, as above.
		20	Chert, light gray brown.
5520	5525	100	Limestone, as above, with chert fragments.

. . .

Exa		R. Knig	
FROM	ТО	R. W. C	SHOWS UNDERLINED SAMPLES LAGGED
5525	5530	100	Limestone, light brown, I VFA.
5530	55 35	80	Limestone, light gray, I-III VF'-FA.
		20	Shale, orange, silty, calcareous.
5535	5540	100	Shale, varicolored, (red, orange, gray, and purple.)
5540	5545	100	Limestone, tan, I VFA, few light gray chert fragments.
5545	5550	100	Limestone, buff, I-III VF-FA.
5550	5565	100	Limestone, tan, I VFA, with some shale.
5565	5570	70	Limestone, as above.
		30	Limestone, I-III VF-FA.
5570	5580	70	Limestone, as above.
		30	Shale, medium gray, silty, calcareous.
5580	5585	100	Shale, medium gray and brown, silty, calcareous, bryozoan fragments.
5585	5590	100	Shale, gray brown, purple, calcareous, silty.
5590	5595	50	Shale, light brown.
		50	Shale, dark purple, slightly calcareous, silty, few fragments ochre I VFA limestone.
5595	5600	100	Shale, green, brown, purple.
5600	5605	100	Shale, light green, light brown, dark purple, rare orange chert.
5605	5610	100	Shale, light green and purple.
5610	5615	80	Shale, as above.
		20	Limestone, tan, I VFA
5615	5635	100	Shale, as above.
5635	5640	80	Shale, as above.
		20	Limestone, tan, I VFA, rare fragment white chert.
5640	5645	100	Shale, as above.
5645	5650	70	Shale, as above.
	•	30	Limestone, white, I-III VF-FA.

Examined by R. Knight 5650to 5765

		R. W. C	llsen to Field or Area East Boundary Butte
FROM	ТО	%	SHOWS UNDERLINED SAMPLES LAGGED
5650	5660	100	Shale, as above.
5660	5665	80	Shale, as above.
		20	Limestone, white-tan, I-III VFFA.
5665	5670	80	Shale, as above.
		20	Limestone, white-ochre, I VFA with pseudo-oolites.
5670	5675	50	Shale, as above.
		50	Limestone, as above.
5675	5685	70	Shale, purple, brown, green.
		30	Limestone, tan, I VFA, pseudo-colitic, with streaks of purple, trace brown red shale.
5685	5690	80	Shale, as above.
		20	Limestone, as above.
5690	5695	70	Shale, as above.
		30	Limestone, tan-light brown, I WFA, pseudo-oolitic.
5695	5700	80	Shale, as above.
		20	Limestone, as above, with trace yellow III FA limestone.
5700	5715	100	Limestone, tan-light yellow, I VFA, pseudo-oolitic in part.
57 1 5	5720	100	Limestone, tan, I-III VF-FA
5720	5725	100	Limestone, tan, I VFA with small pseudo-oolites.
5725	5730	100	Limestone, light yellow, III FA.
5730	5735	100	Limestone, tan, I VFA.
5735	5740	50	Limestone, light yellow, III FA.
		50	Limestone, tan, I VFA.
5740	5750	100	Limestone, tan, I VFA, trace III FA limestone.
5750	5760	100	Limestone, white, III-II VF-FA.
5760	5765	100	Limestone, white, III-II VF-FA, interval 5750-65 approximately 1% spotty fluorescence, trace pale yellow cut fluorescence.

Examined by R. Knight 5765 to 5860
R. W. Olsen to

Well #3
Field or Area <u>East Boundary Butte</u>

FROM	ТО	%	SHOWS UNDERLINED	SAMPLES LAGGED
5765	5770	90	<u>Limestone</u> , as above.	
		10	Limestone, tan, I M-LA, with large	pseudo-oolites.
5770	5790	100	Dolomite, tan, III FA, calcareous.	
5790	5795	50	Limestone, white, II A.	
		50	Limestone, tan, I-III VF-FA.	
5 79 5	58 00	70	Limestone, white, I M-LA.	
		30	Limestone, white, II A.	
5800	5805	100	Limestone, white, I-III VF-MA.	
5805	5810	70	Limestone, as above.	
		30	Chert, light brown.	
58 10	5815	100	Limestone, tan and white, I-III VF-	FA, with cherty fragments
5815	582 0	70	Limestone, white, I VFA.	
		30	Limestone, white, II A.	
5820	5825	70	Limestone, white-tan, I VFA.	
•		30	Limestone, white, II A.	
5825	5830	60	Limestone, white, I MA, pseudo-ooli	tic.
		40	Limestone, white, II A.	
5830	5835	70	Limestone, as above. (I MA)	
		30	Limestone, as above. (II A)	
5835	5840	100	Limestone, white, III-II VF-MA.	
5840	5845	60	Limestone, white, III FA.	
		40	Limestone, white, II A.	
5845	5850	70	Limestone, white, III-II VF-FA. Sh	ows: 5845-50: trace spotty
			fluorescence, pale vello	w cut fluorescence.
		30	Chert, light gray.	
5850	5855	100	Dolomite, medium brown, calcareous	in part, III MB1_5.
5855	5860	100	Dolomite, medium brown, III MB1_501	•

Examined by R. Knight 5860 to 5985
R. W. Olsen ______ to _____

Well #3
Field or Area <u>East Boundary Butte</u>

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FROM	то	%	SHOWS UNDERLINED SAMPLES LAGGED
5860	5865	100	Dolomite, medium brown, III M trace B & C.
5865	5870	100	Dolomite, light brown, III F-M trace B & C.
5870	5875	100	Dolomite, tan, III FA, calcareous.
5875	5880	100	Limestone, white, dolomitic, III F-MA.
5880	5885	100	Dolomite, light brown, III F-MA, trace B.
5885	59 0 0	100	Dolomite, light brown, III F-MA.
5900	5910	100	Dolomite, light brown, III FA trace B.
5910	5915	100	Dolomite, tan-light brown, calcareous, III FA.
5915	5920	100	Dolomite, light brown, III FA.
592 0	5925	100	Dolomite, light brown, III FA trace C.
5925	5940	100	Dolomite, light brown, slightly calcareous, III MA trace B.
5940	595 0	100	Dolomite, medium brown, III M B1-5.
5950	5955	50	Dolomite, as above.
		50	Dolomite, light brown, calcareous, III F-MA.
5955	5960	100	Dolomite, medium brown, III F-MA. Shows: 5925-30: trace sample fluorescence, very slight trace cut fluorescence.
5960	5965	100	Dolomite, medium brown, III F-MA trace B.
5965	5970	100	Dolomite, tan, III FA, very calcareous, few partings light green shale.
5970	5975	70	Dolomite, as above.
		20	Dolomite, tan, as above.
		10	Shale, green.
5975	5980	30	Dolomite, pale green, III FA.
		40	Dolomite, tan, as above.
		30	Limestone, tan, I VFA.
5980	5985	60	Limestone, white, I VF-MA, with green waxy shale partings.
		40	Limestone, tan, as above.

Field or Area East Boundary Butte

 FROM	то	%	SHOWS UNDERLINED	SAMPLES LAGGED	_
 5985	5990	100	Limestone, white, III MA with	minor green shale parts.	
5990	5995	80	Limestone, as above.		
	1 Fig. 1	20	Dolomite, light gray, III MA.		
5995	6010	100	Dolomite, light gray, III F-M	A, with trace light green shale.	
6010	6015	80	Dolomite, as above.		
		20	Shale, light green.		
6015	6020	100	Dolomite, tan, III F-MA.		

STATE OF UTAR OIL AND GAS CONSERVATION COMMISSION AFFIDAVIT AND RECORD OF ARANDOLMENT AND PLUGGING

PLUCGING	METHODS AND PROCEDURE: - The methods and procedure for plugging a well shall	be-as
rollowss	(a) The bottom of the hole shall be filled to, or a bridge shall be placed	
	top of each producing formation open to the well bore, and in either event	
,	plug not less than fifty (50) feet in length shall be placed immediately al	oove-each
	producing formation open to the well bore whenever possible.	*
		P*

- (b) A cement plug not less than fifty (50) feet in length shall be placed at approximately fifty (50) feet above and belew all fresh water bearing strata.
- (c) A plug shall be placed at or near the surface of the ground in each hole,
- (d) The interval between pluys shall be filled with heavy and laden fluid.

						he surface String shall be placed.	
Field or Po	ol East Bo	undary Butte	Count	y San	Juan		
		Well Noo				Range 23 E.	
		May 8,					Annual Control of Control
Was the well	l plugged acc	ording to regul	etion of the (Commissi	on ? <u>Yes</u>	consist constitution descriptions	
of casing le	d used in plicals used: ith open end	and extent (by (giving size, to ugging: Displace Cement and mud. drill pipe hung drill pipe hung	depths) of the op and bottom cement g at 5900', pl	e plugs (elevati. u(ged wi	of different materials of each section of each section the section that it is a section of the s	rials used in plug terials, and the a tion of abandoned ment (5900'-5800) ment (5700'-5600)	t nwom
	to sati		(OVER) Operator	Senior Shell	Exploitation Oil Company hards Street	ment (5200'-5000) Engineer	
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STATE OF UTA		DOTO CONTROL CHAIN WE REPLECT CONTROL CHAIN CONTROL CONTROL CONTROL CONTROL CHAIN CH	PPIDAVIT	onenia en			BE COMMENT OF COMMENT OF THE COMMENT
COUNTY OF _	Salt Lake	e martino-filiale analysis					
the being by	ne duly swo the facts o	rsigned authorisown to me to be rn on oath state tated herein and before me this	the person wh es that he is d that said re	ione name anthoria cort in	e is subscribed ed to make thi two and come	to the above insti e report and has	

My Commission Expires: June 9, 1959

INSTRUCTIONS: Complete this form in duplicate and mail both copies to the Oil and Gas Conservation Commission, Room 105, Capitol Eldg, Salt Lake City Il, Utah.

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D. With open end drill pipe hung at 4950, plugged with 70 sacks cement (4950, 4700)

E. With open end drill pipe hung at 4000, plugged with 30 sacks cement (4000, 3900)

F. With open end drill pipe hung at 3150, plugged with 30 sacks cement (3150, 3050)

G. With open end drill pipe hung at 2400, plugged with 30 sacks cement (2400, 2300)

H. With open end drill pipe hung at 2150, plugged with 60 sacks cement (2150, 1950)

I. With open end drill pipe hung at 1700, plugged with 30 sacks cement (1700-1600)

J. With open end drill pipe hung at 1350, plugged with 30 sacks cement (1350, 1250)

K. With open end drill pipe hung at 835, plugged with 50 sacks cement (835, 730)
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- 4. Heavily mud laden fluid was used between each plug.
- 5. Ran in and found firm cement at 675.
- 6. Surface casing left in hole 0 to 822!.
- 7. Plugged at surface with a 10 sack cement plug, installed marker and officially abandoned on 5-14-56.

UNITED STATES DEPARTMENT OF THE INTERIOR GEOLOGICAL SURVEY

NOTICE OF INTENTION TO DRILL	SUB! EQ	UENT REPORT OF WATER SHUT-OFF	
NOTICE OF INTENTION TO CHANGE PLA		UENT REPORT OF SHOOTING OR ACID	
NOTICE OF INTENTION TO TEST WATER		UENT REPORT OF ALTERING CASING	1 1
NOTICE OF INTENTION TO REDRILL OR		UENT REPORT OF REDRILLING OR RE	
NOTICE OF INTENTION TO SHOOT OR A		UENT REPORT OF ABANDONMENT	
NOTICE OF INTENTION TO PULL OR AL	1 1 .	MENTARY WELL HISTORY	1 1
NOTICE OF INTENTION TO ABANDON W	l mark	WERTART WELL IIISTORI	1 1
NOTICE OF INTENTION TO ADAMDON W			
(INDICATE	ABOVE BY CHECK MARK NATURE OF R	EPORT, NOTICE, OR OTHER DATA)	
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(Field)	(County or Subdivision)	(State or T	erritory)
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U. S. GOVERNMENT PRINTING OFFICE 16-8437b-6

With drill pipe hung at 2150' ping with 60 macks communt (2150-1950) with drill pipe hung at 1700' ping with 30 macks communt (1700-1600) with drill pipe hung at 1350' ping with 30 macks communt (1350-1250) with drill pipe hung at 835' ping with 50 macks communt (835-130)

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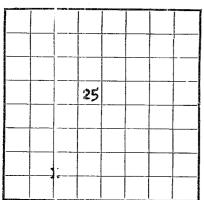
- 2. Run in with drill pipe and feel for top plug. Recement if not above 800:
- J. Cap with a 10 suck casent plug, install merter and abandon in accordance with U.S.J.S. regulations.

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Form 9-3:0



Window Rock
U. S. LAND OFFICE
LIT-20-603-215
SELIAL NUMBER
LEASE OR PERMIT TO PROSPECT

UNITED STATES DEPARTMENT OF THE INTERIOR

GEOLOGICAL SURVEY



LOG OF OIL OR GAS WELL

LOC	ATE: WEL	L COF	RRECTLY									
Compar	ny Shel	1 01	1 Compa	any			- Addres	33 Richards	St., Sa	lt Lak	e City, Utah	
Lessor o	o: Tract	Tri	bal Lar	nds			Fiel .	Boundary But	te State	Utah		
Well No	3	Se	ec.25 r	r438 R	23E M	eridia	S.L.B.	& M. Co	unty	1 Afferti		
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Date	6-14-	56									ineer	
			n this pag	ge is for t	he condi	tion o	of the well	at above date.				
								ed drilling Maj	4,		1 5 6	
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No. 1, f	rom			_ to			No. 3,	from None No	ed es to)	****	
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WALL CARC	23720112	nior erro	MANUS AND STREET	t res reserre	t rintere	A CER	any change	I. Please state in (s made in the casi	ik, simte tud	n, ano n	Any Casing was	
It is	3 1 the 2r	eatest	importane							the of redr		
				2-8-6	E.L. JESA			GAS WELL	648094-2	U. S. GOVERNME	TE PRINTING OFFICE	
				MUDE	ING A	ND C	EMENT	NG RECORD				
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/8#	823		275		Di		la cement	,	***			

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FORMATION RECORD—Continued

FORMATION.

16-48094-3

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PLUGS AND ADAPTERS

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Hearing plug-Material America